



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SR-6J

October 16, 2012

**VIA ELECTRONIC MAIL AND CERTIFIED MAIL**

Weyerhaeuser Company  
Attention: Richard Gay  
810 Whittington Ave.  
Hot Springs, AR 71902

Re: Plainwell Mill, Operable Unit #7, Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site – EPA Comments on Response to EPA Comments on Summary of Additional Remedial Investigation Activities PCB-Impacted Soil in the Area of MW-16 dated September 7, 2012

Dear Mr. Gay:

Pursuant to the Consent Decree for the Design and Implementation of Certain Response Actions at Operable Unit #4 and the Plainwell Inc. Mill Property of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site (Site), Conestoga-Rovers & Associates, Inc. (CRA), Weyerhaeuser Company's (Weyerhaeuser) environmental consultant, submitted a revised Remedial Investigation (RI) Report on April 20, 2012 for Weyerhaeuser. The revised RI Report provided recommendations for additional activities to be completed at the Site to address potential data gaps including the delineation of polychlorinated biphenyl (PCB) impacts identified in soil in the vicinity of MW-16 during the RI.

The additional RI activities were conducted on the northeastern portion of the Site in redevelopment area Commercial Area 4, in the vicinity of monitoring well MW-16, and were summarized in a memorandum submitted by CRA to the United States Environmental Protection Agency (EPA) on June 22, 2012. CRA submitted a revised memorandum with a cover letter that included a response to EPA comments on September 7, 2012.

After reviewing the September 7, 2012 submittal and response to comments, EPA has the following comments on those responses:

**GENERAL COMMENT**

In Section 2.0 (Page 2-1), the text states that soil borings were advanced to 10 feet below ground surface (bgs) and groundwater was encountered at 8 to 10 feet bgs. The conclusion section (Section 6.0) states that some of the highest PCB concentrations in soil were detected just above the water table; however, no groundwater samples were collected. Because PCBs were not

detected at elevated concentrations in soil deeper than 6 feet bgs at locations MW-16 and subsequent adjacent soil boring SB-2020, it is not surprising that PCBs were not detected in groundwater at well MW-16. Absence of PCBs in groundwater at well MW-16 does not preclude the possibility of impacts on groundwater at other locations where PCB concentrations were elevated in soil just above the water table. Groundwater samples should be collected at locations where PCBs were detected in soil just above the water table, including locations between MW-16 and the Mill Race to assess whether groundwater has been impacted in this area.

*CRA Response: The comment is acknowledged and Weyerhaeuser agrees that absence of polychlorinated biphenyls (PCBs) in groundwater at MW-16 does not preclude the possibility of PCB impacts in groundwater in this area. However, if PCBs are present in groundwater resulting from the soil just above the water table where elevated PCB concentrations were present, then the anticipated remedial approach would be removal of the PCB source material followed by post-remedial groundwater monitoring for PCBs. Given the nature and extent of PCBs present in this area, including soils just above the water table, Weyerhaeuser anticipates that soil removal will be completed to remove the soils containing the elevated PCBs. Regardless of whether PCBs are present in groundwater at this time, the anticipated approach for soil and groundwater in this area would not change (i.e., soil removal followed by groundwater monitoring). Therefore, Weyerhaeuser does not propose the collection of groundwater samples in this area as part of the Remedial Investigation.*

*Further language has been added to the memorandum to discuss the potential impacts to groundwater and Weyerhaeuser's rationale.*

*EPA Response: EPA is still considering this approach. EPA would like more detail on how Weyerhaeuser plans to monitor groundwater in conjunction with soil remediation in this area to determine if any potential impacts of PCBs have been fully addressed.*

## **SPECIFIC COMMENTS**

**1. Section 2.1, Page 2, Paragraph 3.** The text states that each soil interval was examined for visual/olfactory evidence of impacts. The results presented in Section 5.0 should be revised to discuss whether any impacts were observed at each of the depth intervals sampled.

*CRA Response: Section 5.0 of the memorandum has been revised to include a paragraph which discusses the field impacts observed during soil boring installation and whether any of the impacts relate to the PCB concentrations present in the soil samples.*

*EPA Response: This is acceptable.*

**2. Section 6.0, Page 5, Paragraph 5.** The conclusions section should include an explanation or statement regarding the source(s) and site-relatedness of the identified PCB contamination. The measured PCB concentrations are relatively high, localized, and unlikely to be associated with other non-site-related activities. The text should discuss whether any site-related pipes, tanks, or other operational pieces (units) are present (or formerly were present) in this area that might be related to the identified PCB contamination.

*CRA Response: Further discussion of the potential sources of the PCB-impacted materials has been added to Section 6.0 of the revised memorandum. It should be noted that historical record reviews and available information have not identified any potential sources such as Site-related pipes, tanks, electrical equipment, or other operations in this area that could potentially be the source of the PCB impacts. Instead, it is more likely that the PCBs present are related to the Mill Race located immediately adjacent to this area. The rationale for this premise includes the following:*

- The PCB impacts are highest moving away from the building and toward the Mill Race. Limited Site-related operations have historically occurred in this area of the Site.*
- Although some Aroclor 1254 is present in this area, the highest concentrations of PCBs detected are Aroclor 1242 and Aroclor 1248, which are generally observed in impacted sediment related to the Kalamazoo River.*
- The location of the impacted material is in close proximity to where the dam for the Mill Race is located; therefore, historically, this would be an area where higher levels of sedimentation from upstream would be expected. Although aerial photography of sufficient quality to accurately document changes to the Mill Race bank do not exist, the aerial photography and historical Site information available suggest that some modifications to the bank configuration has occurred over time.*
- PCBs observed in the soil samples collected in this area appear to be associated with a gray clay material that is present in the soil borings in this area. Where the highest PCB concentrations are observed, the gray clay material is present above a coarse sandy gravel layer, which is consistent with a river bed material.*

*EPA Response: Please reword the text in Section 6.0 that currently states “... it is presumed that the likely source of the elevated PCBs observed in the investigation area is the adjacent Mill Race” to “one possibility is that the source of the elevated PCBs observed in the investigation area may be the adjacent Mill Race”.*

**3. Section 6.0, Page 5, Paragraph 5.** The text should either conclude that the PCB contamination extends to the Mill Race or recommend advancement of additional borings closer to the Mill Race in an attempt to establish an alternate boundary of the extent of contamination. In addition, the extent of contamination south/southeast of boring SB-2030 is not defined. The text should be revised either to indicate the need for additional borings in this area for defining the extent of PCB impacts or to provide rationale for no further sampling.

*CRA Response: The memorandum did not comment on the extent of PCB-impacted material toward the Mill Race since this area is not technically part of the Site (i.e., Site is defined to the top of the riverbank). As noted in the Response to Specific Comment No. 2, given the premise that the source of the material is the Mill Race, it is anticipated that PCB-impacted material is present to some degree between the row of soil borings located along the top of the riverbank toward the Mill Race. The conclusions of the memorandum have been revised to be consistent with this discussion. Given the logistical challenges with installing additional soil borings toward the Mill Race (i.e., steep slope and close proximity to the water), Weyerhaeuser does not*

*propose further investigation of this material but instead anticipates this area will be addressed through remedial activities.*

*With respect to delineation of PCB impacts to the south of soil boring SB-2030, the impacts observed in this soil boring are below the Michigan Act 451, Part 201 soil criteria for Non-Residential use, which is the appropriate standard for this portion of the Site (i.e., commercial use). Therefore, unless the land use in this area changes, there is no need to further delineate the extent of PCB impacts further to the south. The text of the memorandum has been modified to include this rationale for no further sampling.*

*EPA Response:* *Since the criteria being used for comparing PCB analytical results are the residential and non-residential direct contact numbers shown in Table 2, it would be helpful to actually state these values in Section 5.0 and in the legend on Figures 3A-3E.*

Please submit a revised memorandum that incorporates EPA's comments within 30 days of receipt of this letter for review. If you have any questions or comments regarding this letter, please contact me at (312) 353-4150 or via email at [desai.sheila@epa.gov](mailto:desai.sheila@epa.gov).

Sincerely,



Sheila Desai  
Remedial Project Manager

cc: J. Saric, U.S. EPA (e-mail)  
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